Children’s Hospital of Pittsburgh

Research Development Report

Reporting Period:

July 1, 2012 - June 30, 2013

Commercial Development of Research

No activities during the reporting period related to any Tobacco Funds for Children’s Hospital of Pittsburgh research recipients.

Research Licensing Agreements

Children’s Hospital of Pittsburgh of the University of Pittsburgh Medical Center Health System (CHP) researchers are faculty of the University of Pittsburgh. CHP and the University share a collaborative agreement whereby all intellectual property developed through CHP researchers are assigned to the University of Pittsburgh. The University of Pittsburgh remains fully committed to fostering innovation commercialization among its faculty, staff and student researchers, building strong industry partnership, promoting an entrepreneurial culture and contributing proactively to regional economic development as part of its educational mission.

The University of Pittsburgh Office of Technology Management (OTM) and its affiliate office, the Office of Enterprise Development Health Sciences (OED) is a service of the Office of the Senior Vice Chancellor. These offices act as resources for health science faculty pursuing entrepreneurship and interactions with industry. (http://www.oed.pitt.edu) OED is a central link bringing the University of Pittsburgh’s world class researchers together with the life sciences business community. The OTM serves as the hub of all technology commercialization activities at the university. The OTM assists in fulfilling the University’s mission of education, research and public service by facilitating the development of products and processes from University technology for the benefit of the University, its faculty and staff, and the community. OTM provides an Inventor’s Handbook to researchers to help them become well informed, effective participants in the process of transferring University inventions to the commercial sector. The OTM has a comprehensive Web site http://www.otm.pitt.edu designed to assist investigators in all aspects of technology management, including licensing. To manage the commercialization activities for staff, the OTM employs intellectual property experts, specialized licensing managers, business development and technology marketing professionals, education and outreach teams and reporting and compliance personnel.

The OTM and OED continue to focus on engaging more faculty, staff and students in the innovation commercialization process; educating them about such endeavors; and building a community of “Pitt Innovators,” defined as those who enter the process officially by submitting invention disclosures for commercial consideration.
Training Students and Health Professionals

Children’s Hospital of Pittsburgh of UPMC maintains a very successful pediatric training program for our students, residents, fellows and junior faculty. During this reporting period the faculty of the Department of Pediatrics faculty grew to 286 with 19 divisions. The residency programs of the department, including Categorical Pediatrics, Medicine-Pediatrics, Pediatrics-Psychiatry triple board Child Neurology and the new Patient Advocacy Leadership Service residency program, now are constituted by 118, the highest number in our history. The 16 pediatric subspecialty fellowship training programs of the department now have 79 fellows, more than twice the number of fellows in our programs a decade ago.

The internal Research Advisory Committee (RAC) of Children’s Hospital of Pittsburgh is responsible for soliciting, evaluating, awarding and administering internally funded research grants, fellowships and mentored student summer program. During this reporting period the RAC received a total of 17 new proposals and 9 second year proposal requests. Funding was granted to 7 new proposals and 9 second year proposals. New proposals were funded in the following categories: Start-up/Seed (1); Fellowship (4) Graduate Student Researcher (1) and Bridge funding (1). These awards undergo a competitive peer review process under the direction of senior research faculty. The 2013 awards to young investigators included the divisions of Infectious Diseases, Immunogenetics, Medical Genetics and Weight Management. Year 2 proposals were funded in the divisions of Child Development, Infectious Diseases, Pulmonology, Newborn Medicine, Surgery, Medical Genetics and Nephrology.

Each summer, the Children’s Hospital of Pittsburgh Research Advisory Committee (RAC) conducts a Research Summer Internship Mentored Program. This 8-week program provides undergraduate, graduate and medical students with an excellent opportunity to learn the rationale, design strategies, methods and other aspects of biomedical research by engaging in stimulating hands-on research under the direction of faculty and research staff. During this review period the program supported a record high of 37 students representing 25 colleges, universities and medical schools throughout the country. Student interns are required to present their work at the conclusion of the summer at the annual Poster Day Symposium. Interns also have the opportunity to participate in clinical shadowing experiences offered in the CHP Emergency Department, Neonatal ICU and the Labor and Delivery Department at the Magee Women’s Hospital of UPMC.

CHP collaborates with the University of Pittsburgh and the University of Pittsburgh Medical Center (UPMC) to offer didactic training courses designed for all levels of trainees and faculty. In addition, the Department of Pediatrics sponsors a bi-weekly Continuing Medical Education opportunity on the Children’s Hospital of Pittsburgh campus. The 2012-2013 reporting periods sponsored 46 guest speakers, 28 of whom were invited guest lectures’ from academic institutions throughout the United States and abroad.
Commercial Research Development Training

All activities related to Commercial Research Development Training are conducted through the University of Pittsburgh.

A specific function of the Office of Technology Management is education and training opportunities to faculty, staff, postdoctoral fellows, and graduate students related to commercialization of research. Additionally, the Office of Enterprise Development offers customized seminars to department and focuses on issues related to commercialization, such as Intellectual Property; Corporate Collaborations; Funding for Commercial Development; and Starting a Company. During this reporting period, the Office of Technology Management (OTM) and Office of Enterprise Development, Health Sciences (OED) engaged in a series of activities to provide training opportunities to faculty, staff, postdoctoral fellows, and students related to the commercialization of research. A sample of activities and educational opportunities include the following:

- In the fall 2012, OTM and the Office of the Provost hosted their annual seven-week course, “Academic Entrepreneurship: The Business of Innovation Commercialization” for faculty and their research students. This motivational, innovative educational opportunity is designed to teach the steps to transforming research into innovations with commercial potential. The course also includes a one-day Innovation Workshop during which attendees have an opportunity to explore their own innovation ideas in a private, team-oriented learning environment.

- In February 2013, the OED and OTM co-hosted a 16-week course on innovation commercialization entitled “From Benchtop to Bedside: What Every Scientist Needs to Know.” The course focuses on the innovation development/commercialization process, but with particular emphasis on life sciences-related technologies, regulatory issues, and topics such as business models based on insurance reimbursement. The course consists of a series of seminars designed to identify and provide details about the steps necessary to develop a scientific or clinical discovery from the laboratory to the patient.

- The OTM offers researchers the Innovator Library where they will find an ever-expanding collection of educational materials, how-to articles, and videos designed to help guide them along the commercialization and entrepreneurial journeys at the university.

- OTM/OED conducted numerous introductory presentations in departments across campus, as well as to student classes.

- The OTM distributes the “Pitt Innovator’s Guide to Technology Commercialization at the University of Pittsburgh” throughout the year.

- The OED also publishes a biweekly newsletter designed to keep investigators informed of news and trends related to entrepreneurial activities, technology transfer, and commercialization. Investigators are encouraged to subscribe to this electronic communication.
Outreach to Businesses Regarding Recent Research Developments

All activities related to Outreach Research Developments are conducted through the University of Pittsburgh.

- **Database marketing**—OTM continued to post its portfolio of available innovations on searchable online databases, including TechFinder, which is accessible through the OTM Web site (www.otm.pitt.edu) by industry, investors, and other outside parties. The network provides ongoing leads from interested industry representatives.
- **Business development**—OTM and OED continued to pursue the development of new long-term relationships with industry for the purposes of sponsored research, clinical trials, and innovation out-licensing.
- **Commercialization Advisory Committee**—The OED again hosted a gathering of its Commercialization Advisory Committee to review and discuss potential start-up opportunities among Pitt innovations. The group is made up of business leaders and successful Pitt alumni.
- **Technology Showcase**—OED worked with the Office of Academic Affairs, Health Sciences to organize the 9th annual Technology Showcase reception as part of Pitt’s annual celebration of science and research, “Science2012.”
- **Annual report**—OTM, in October 2012, published its annual report celebrating 16 years on innovation. The report showcases Pitt innovators and their commercially viable innovations. OTM sent the report to nearly 1,000 companies, economic development agencies, investment firms, foundations, and others to promote commercialization and foster more interaction with industry.

Research Development Collaboration

Collaborative efforts continue to expand both the basic and clinical research areas with faculty at Children’s Hospital of Pittsburgh / University of Pittsburgh School of Medicine and those of external institutions. Large ongoing collaborative initiatives continue in the division of Pediatric Gastroenterology involving 13 academic institutions nationally and in Canada.

During this reporting period we have recruited new division chiefs and faculty building on our scientific program in areas of hematology and oncology, neurology and pulmonology. These new recruits and initiatives will contribute to the continued expansion and collaboration of our research and training efforts throughout the country.